

AMENDMENT TO THE CLAIMS

1.(Currently Amended) A light source device, comprising:

a bulb inside which a discharge medium is sealed;

an internal electrode disposed at an end portion inside the bulb;

an external electrode disposed outside the bulb;

~~a holder member holding the external electrode so that the external electrode is opposed to the bulb with a predetermined distance of a space, and~~

~~—— a dielectric member disposed outside of the bulb at a position corresponding to the internal electrode so as to be interposed between the bulb and the external electrode.~~

a dielectric member disposed in the vicinity of the internal electrode so as to be interposed between the bulb and the external electrode at a portion in an elongation direction of the bulb; and

—— a holder member holding the external electrode so that remaining portion of the bulb other than the portion where the dielectric member exists and the external electrode are opposed to each other with a predetermined distance of a space.

2.(Currently Amended) The light source device according to claim 1, wherein the distance of the space between the external electrode and the bulb is not less than a shortest distance defined by the following equation,

$$X L = \frac{V}{E 0} \cdot \frac{\epsilon a}{\epsilon g} \times t g$$

X1L: shortest distance

E0: dielectric breakdown voltage

V: input voltage

ϵa : relative permittivity of air

ϵg : relative permittivity of a vessel wall of the bulb

tg: thickness of the vessel wall of the bulb.

3.(**Currently Amended**) The light source device according to claim 1-~~or~~2, wherein the internal electrode comprises a proximal end positioned on an end portion side of the bulb, and a distal end positioned on a center portion side of the bulb relative to the proximal end, and wherein a dimension of the dielectric member in an elongation direction of the bulb and a position of the dielectric member in the elongation direction of the bulb are set so that a distal end of an image of the internal electrode projected onto the external electrode is positioned on the dielectric member.

4.(**Original**) The light source device according to claim 3, wherein the dielectric member comprises a proximal end positioned on the end portion side of the bulb, and a distal end positioned on the center portion side of the bulb relative to the proximal end, and

wherein the proximal end of the dielectric member is positioned on the end portion side of the bulb relative to the distal end of the internal electrode, and the distal end of the dielectric

member is positioned on the center portion side of the bulb relative to the distal end of the internal electrode.

5.(Currently Amended) The light source device according to claim 1, any one of claims 1 to 4, wherein the dielectric member is disposed so as to be in contact with an outer surface of the bulb.

6.(Currently Amended) The light source device according to claim 1, any one of claims 1 to 4, wherein the dielectric member is disposed so as to be in contact with the external electrode.

7.(Currently Amended) The light source device according to claim 1, any one of claims 1 to 4, wherein the dielectric member comprises only a dielectric material.

8.(Currently Amended) The light source device according to claim 7, ~~wherein the dielectric member is provided at a portion of an outer periphery of the bulb viewing in the elongation direction of the bulb~~ wherein a relative permittivity of the dielectric material is not less than 4.7.

9.(Currently Amended) The light source device ~~according to claim 7 or 8, wherein a relative permittivity of the dielectric material is not less than 4.7~~ according to claim 1, wherein the dielectric member comprises a dielectric portion made of a dielectric material, and a

conductive portion made of a conductive material.

10.(Currently Amended) The light source device ~~according to any one of claims 1 to 4,~~
~~wherein the dielectric member comprises a dielectric portion made of a dielectric material, and a~~
~~conductive portion made of a conductive material~~ according to claim 9, wherein the conductive
portion is disposed inside the dielectric portion.

11.(Currently Amended) The light source device ~~according to claim 10, wherein the~~
~~dielectric member is provided at a portion of an outer periphery of the bulb viewing in the~~
~~elongation direction of the bulb~~ according to claim 10, wherein the dielectric portion comprises a
first dielectric layer positioned on the side of the bulb and a second dielectric layer positioned on
the side of the external electrode, and
wherein the conductive portion comprises a conductive layer disposed between the first
dielectric layer and the second dielectric layer.

12.(Currently Amended) The light source device ~~according to claim 10 or 11, wherein the~~
~~conductive portion is disposed inside the dielectric portion~~ according to claim 11, wherein the
conductive layer is a sheet member made of the conductive material.

13.(Currently Amended) The light source device ~~according to claim 12, wherein the~~
~~dielectric portion comprises a first dielectric layer positioned on the side of the bulb and a second~~

~~dielectric layer positioned on the side of the external electrode, and~~

~~_____ wherein the conductive portion comprises a conductive layer disposed between the first dielectric layer and the second dielectric layer according to claim 11, wherein the conductive layer is a mesh member made of a conductive material.~~

14.(Currently Amended) The light source device ~~according to claim 13, wherein the conductive layer is a sheet member made of the conductive material according to claim 10, wherein the conductive portion is an elongated member embedded in the dielectric portion.~~

15.(Currently Amended) The light source device ~~according to claim 13, wherein the conductive layer is a mesh member made of a conductive material according to claim 1, further comprising a conductive member disposed within the bulb at a position corresponding to the internal electrode and the dielectric member.~~

16.(Currently Amended) The light source device ~~according to claim 12, wherein the conductive portion is an elongated member embedded in the dielectric portion according to claim 15, wherein the conductive member comprises a proximal end positioned on the end portion side of the bulb, and a distal end positioned on the center portion side of the bulb relative to the proximal end portion, and~~

~~_____ wherein a dimension of the conductive member in an elongated direction of the bulb and a position of the conductive member in the elongation direction of the bulb are set so that a distal end of an image of the conductive member projected onto the external electrode is positioned on~~

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the dielectric member.

17.(Currently Amended) ~~The light source device according to any one of claims 1 to 4,~~
~~further comprising a conductive member disposed within the bulb at a position corresponding to~~
~~the internal electrode and the dielectric member~~

A lighting device, comprising:

the light source device according to claim 1; and,

a light guide plate having a light incidence surface and a light emission surface

and guiding a light emitted from the light source device from the light incidence face to the light
emission face for emission.

18.(Currently Amended) ~~The light source device according to claim 17, wherein the~~
~~conductive member comprises a proximal end positioned on the end portion side of the bulb, and~~
~~a distal end positioned on the center portion side of the bulb relative to the proximal end portion,~~
~~and~~

~~wherein a dimension of the conductive member in an elongated direction of the~~
~~bulb and a position of the conductive member in the elongation direction of the bulb are~~
~~set so that a distal end of an image of the conductive member projected onto the external~~
~~electrode is positioned on the dielectric member~~

A liquid crystal display device, comprising:

the light source device according to claim 1;

_____ a light guide plate having a light incidence surface and a light emission surface
and guiding a light emitted from the light source device from the light incidence face to
the light emission face for emission; and
_____ a liquid crystal display panel disposed so as to be opposed to the light emission
face of the light guide plate.

Claims 19-21 (Cancelled)